

## IN THE SPECIFICATION

Please replace the paragraph beginning on page 1, line 22 with the following:

B<sub>1</sub> In *Arabidopsis thaliana*, the Salt Overly Sensitive 7 2 (SOS2) gene is required for intracellular Na<sup>+</sup> and K<sup>+</sup> homeostasis. Mutations in SOS2 cause Na<sup>+</sup> and K<sup>+</sup> imbalance and render plants more sensitive toward ~~growth~~ growth inhibition by high Na<sup>+</sup> and low K<sup>+</sup> environments. We isolated the SOS2 gene through positional cloning. SOS2 is predicted to encode a serine/threonine type protein kinase with an N-terminal catalytic domain similar to that of the yeast SNF1 kinase. Sequence analyses of *sos2* mutant alleles reveal that both the N-terminal catalytic domain and the C-terminal regulatory domain of SOS2 are functionally essential. The steady-state level of SOS2 transcript is up-regulated by salt stress in the root. Autophosphorylation assays show that SOS2 is an active protein kinase. In the recessive *sos2-5* allele, a conserved glycine residue in the kinase catalytic domain is changed to glutamate. This mutation abolishes SOS2 autophosphorylation, indicating that SOS2 protein kinase activity is required for salt tolerance.

Please replace the paragraph beginning on page 6, line 19 with the following:

B<sub>2</sub> Fig. 5: Regulation of SOS2 expression by salt stress. Plants were treated with 200 mM NaCl (A) or with nutrient ~~solution~~ solution as a control (B) for the indicated time periods. Total RNA were extracted from roots and shoots, and subjected to Northern blot analysis with <sup>32</sup>P-labeled SOS2 cDNA as probe. Thirty-five micrograms of total RNA was loaded in each lane. Ethidium bromide-stained rRNA bands were used as controls for equal loading.

Please replace the paragraph beginning on page 6, line 19 with the following:

NE **Genetic and Physical Mapping.** Genetic mapping with restriction fragment length polymorphism and PCR-based markers was as described (19). Construction of yeast artificial chromosome (YAC) and bacterial artificial chromosome (BAC) clone contigs (1) was partly

based on information available at <http://www.nucleus.esl.org/protarab/chrom5.map> and  
<http://www.kazusa.or.jp/arabi/chr5/map/12-14Mb> publicly available databases. This  
information is incorporated herein by reference.